

INTELLIGENT STREET LIGHT OPERATOR
HIGH MAST CONTROLLERS NSW 110 & ESO 110

WADERS' iSLO 110 and ESO 110 series timers are based on entirely new and revolutionary concept in automation of Street Lights, that will change the scenario of Street Light Automation, in coming years.

These microcomputer based devices control Street Lights according to Sunset and Sunrise timings. The lights are turned ON and OFF, precisely, when needed and without involvement of any manpower. This concept provides **ultimate saving in electricity and resources**. These controllers has in-built sunrise and sunset timings for all 365 days, for any location, in the world. It is by all means a True Nature Switch.

Some of the Combined Features of the Models NSW 110 & ESO 110

- Built around world's latest microcomputer based technology.
- Mode of Operation – Auto / Manual, through program.
- Twilight option is also available and is adjustable between 0-60 minutes.
- Midnight hours setting is available, to turn OFF load before sunrise (in Manual Mode).
- Zero Maintenance System
- Inbuilt Sunrise and sunset timing for 365 days, eliminates the need of any maintenance, as in photo sensor based or infrared sensor based devices or adjusting the time in 15 days as in conventional time switches.
- Intends to provide completely 'unmanned' operation of street lights.
- On site programming facility.
- Lights are activated only when required :
 - reduces electricity bill,
 - enhances luminaries' life.
 - Ideal device for Electrical Energy Conservation



Street Lights Controllers
with GSM facility

All features of NSW110, in addition of the following,

- Load can be controlled by sending SMS through authorized mobiles.
- Load status can be enquired, anytime, by SMS.
- Any change in status is automatically updated on group of authorized mobiles.
- Sequential Super Energy Saving Mode
- Saves up to 40% of total electrical consumption every day.





POWER CONTROLLER UNIT (PCU)

WADERS' POWER CONTROLLER UNIT (PCU) is a powerful and economical solution for mobile shelters, providing complete power management. It comprises of Intelligent AMF controller for generator, Automatic Healthy Mains phase selector, load distribution panel, Mains Supply Regulator Unit, fault alarms and much more.

Upto three BTS Batteries can be connected and monitored by the PCU. Generator running hours depend on the BTS Battery condition, hence, reducing overall running of genset, resulting in low maintenance and trouble free running for longer periods.

AUTOMATIC MAINS FAILURE (AMF) PANELS

Incase of Mains Failure AMF Panel starts the generator automatically for the quick resumption of power supply without any attendant. Whereas it transfers the load from mains to the generator. AMF Panel also provides many vital protections to the generator such as engine shut off at Low Lubrication Oil Pressure, Over Load, Over Speed, etc. Panels can also be made as per customized requirements.

AUTOMATIC SYNCHRONIZING PANELS

These panels are used for parallel operation of two or more power sources. These sources may diesel generators or power transformers. Depending on the requirement, the synchronizing panels can be manual or automatic.

Other panels like Power Factor Correction Panels, Fire Fighting Panels, Motor Starter Panels, Standard Generator Panels, Busbar Ducts, Distribution Panels, etc. are also available.



AUTOMATIC SCHOOL BELL MANAGEMENT SYSTEM - PEON 110

Based on the latest microcomputer technology, Automatic Bell Management System - Peon 110 is a unique & elegant device, especially designed to ring the Schools/Colleges Bell automatically. With the provision of automation, the device also has several electronic protections for the bell, which provide it long lasting life. a newly designed device has user-friendly operations to setup different parameters as the requirements of the user.

A user can program the various timings of the periods, recess, and offs without any confusing code, with the provision of 12 bells/day a user can also setup the length of each bell separately. Despite all other features a user can program timings for weekends & Sundays separately.

It has a crystal-clear LCD display, which helps the user to read & set various parameters easily. Incase of power failure, it's settings are protected by the RTC battery backup for approx. 2 years.



Attend
the **latest**
period
of technology

A Unique and
Unmanned Operation
of School Bells

PROCESS CONTROL & PROTECTION RELAYS



Electrical protection relays for Over/Under Voltage, Over/Under Frequency, Earth Fault, Over Current, Synchronisation Relays for Automatic Load Sharing, Frequency Control, Synchronizing Check Relay. Digital Timers for varied durations and types like normally on, normally off, cyclic, periodic etc.

AUTOMATIC AIR CONDITIONER TIMERS

Twin Air Conditioners Controller Model : TMR110

- Programmable time range from 2 minutes to 100 hours.
- Controls two Air Conditioners, alternatively.
- Useful for places where two ACs are installed like in offices, ATM centers, Residences etc.
- Displays time in countdown mode.
- Operating Voltage between 150VAC to 290VAC
- Load up to 16 Amps
- Pushbuttons for SET, NEXT, UP and DOWN to program different parameters
- Auto / Manual Mode

Dual Air Conditioner Controller Model : TMR110X

All features of TMR110, in addition of the following :

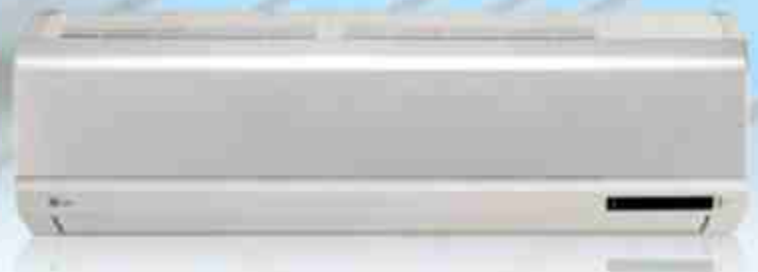
- Time based operation of 2/3/4 Air Conditioners
- Model also available, to run two Air Conditioners at a time, in pairs.
- Suitable for places where more than 3 Air Conditioners are installed.



Multiple Air Conditioner Controllers Model : MAC110 MACC 110 is an Advanced Energy Conservation / Energy Saver System, that is designed to control 2/3/4 Air Conditioners, at places where temperature maintenance is of utmost importance like Mobile/Telecom Shelter (BTS), ATMs, Laboratory, offices etc. It provides necessary automation to keep temperature within limits and simultaneously providing the needed rest to the Air Conditioners.

Depending on the temperature, the unit provides Auto selection of Cyclic Mode, Sequential Mode, and Hibernation Mode. Simultaneous or single running selection is made by the unit itself. All the parameters are fully programmable.

- Cyclic Mode
- Sequential Mode
- Remote Alarm
- Winter Hibernation
- Electrical Protection
- Power Saving



INTELLIGENT AMF CONTROLLERS - HJ 110

HJ110 series AMF controllers are designed to control the Standard AMF logic, prevalent in the power generation industry. Because of its compact and powerful design, external wiring and components are reduced to the minimum, which enhances the overall performance of the AMF panels.

Basic functions of HJ 110 SP and HJ 110 TP, are same, except that HJ 110 SP is meant for the single phase generators and HJ 110 TP has necessary operational differences related to three phase generators.

Features of HJ 110 Series Intelligent AMF Controllers

- Displays Load On Mains/Gen, Voltage, Current, KVA, Frequency and Generator RPM.
- Displays individual AMF timers in progress, in countdown mode.
- Different messages related to Engine and Electrical faults are also available for the user.
- Built in Line Voltage Monitor (LVM) to ensure safety of electrical load connected to panel.
- Built in Generator Voltage Monitor, for the safety of generator and connected load.
- Built in timers for : Mains Wait Time, Cranking Wait, Cranking ON, Cranking OFF, Cranking Attempts, Stop Solenoid, Engine Idle Run, and are programmable at site.
- Built in Engine Safety for Low Oil pressure, High Coolant temperature and Start failure (Fail To Start).
Other inputs (on request): Low fuel level alarm, Emergency Stop, Fail to Stop Alarm, etc.
- Mode of operation: OFF, Auto, Manual and Program.
- Auxiliary contacts for Mains Contactor, Alternator Contactor, Start, Stop, Fail to Start, etc.
- Programmable parameters for Mains Wait Timer, Generator Wait Timer, Crank Wait Timer, Crank On Timer, Crank Off Timer, Crank Attempts, Stop Solenoid Timer, Idle Run Timer, Mains Over/Under Voltage, Generator Over/Under Voltage, Voltage Trip Time, CT rating.
- Password protection to prevent unauthorized access to program menu.

BT 110 AMF CONTROLLERS

BT110 series AMF CONTROLLERS, which are powerful and dedicated AMF controllers for Mobile / Telecom BTS Shelters, providing complete power management. It comprises of Intelligent AMF controller for generator, Mains Supply Monitor, shelter Battery Monitor, Remote Fault alarms and much more.

Exclusive shelter battery monitoring avoids unnecessary running of generator. Generator running hours depend on the BTS Battery condition, hence, reducing overall running of generator, resulting in low maintenance and trouble free running for longer periods.



Powerful and Dedicated
AMF controllers for
Mobile / Telecom BTS Shelters

AUTOMATIC CHANGEOVER cum CIRCUIT BREAKER - CNG 110

A complete microprocessor based solution to restrict generator supply automatically for the places where single generator supply is provided to many users as in multistoried apartments, commercial complexes, multiplexes etc.

Functions & Features

- Design based on the latest microcomputer technology.
- Ideal power allotment system to restrict generator supply for the places, where single generator is used by many users as in multistoried apartments, commercial complexes, etc.
- Restriction on load, when Generator supply is used.
- No restriction on choice of generator power points.
- No separate wiring is required for generator supply.
- Failsafe, tamper proof and maintenance free.
- Simplifies electrical wiring and complexity.
- Models available in Single phase and Three phase, ranging from 0.5 A. to 50 A.



AUTOMATIC PHASE CHANGER - APC 110

- Suitable for places where two or more phases are available and output is single phase.
- Automatic selection of healthy incoming phase.
- Displays voltage of the incoming phases.
- Displays the status of load
- If one mains phase fails, output is shifted to other phase.
- Available for any output load, up to 1200 A.

AUTOMATIC PHASE CHANGER - DPC 110

All features of APC110, in addition of the following,

- Input for generator available.
- In case of total mains failure, load is shifted on available generator phase.
- Generator auto stop on resumption of any of mains phase.

Notes :- Not meant for 3 Phase loads, appropriate MCBs are recommended at load.

SCADA Based FIRE ALARM/MONITOR - GRD 110

The GRD110 is a state of the art. Fire Alarm/Monitor device, designed exclusively for Mobile BTS/Telecom Shelter or any other place, where fire alarm, is needed. The unit is completely programmable at the site. It has a user-friendly Man-machine interface with the help of a keypad, LED's and a LCD display. Since, all messages are displayed on a large size, LCD; the messages are in clear user friendly language. The device makes use of GSM network's Short Message Service (SMS) to send system status, to predefined mobile numbers.

Functions & Features

- Parameters can be programmed on site.
- 1-4 Fire Zones can be wired without any extra interface.
- More than 20 smoke detectors can be assigned to each zone.
- Temperature is set in range of 0-100 C.
- Alarm on Smoke Detection or increase in temperature.
- Local audio visual alarm, in case of any alarm.

SMS Based FIRE ALARM/MONITOR - GRD 110 MSG

- 1-4 Fire Zones can be wired without any extra interface.
- More than 20 smoke detectors can be assigned to each zone.
- Temperature is set in range of 0-100 C.
- Alarm on Smoke Detection or increase in temperature.
- Local audio visual alarm, in case of any alarm.
- 5-10 Mobile Numbers can be entered, to send or receive messages.
- If the alarm is not acknowledged, within the given time, the message is sent to the group of authorized mobile numbers.
- An individual authorized user can enquire the system status at any time. The system will send back a status message to that particular number only.
- The unit is powered by its own power supply, so that, the unit keeps working, when mains and generator supplies are failed in extreme conditions.



ASTRONOMICAL TIME SWITCH (Sunrise/Sunset Switch) - AST 110-S

- A True Nature Switch, without any optical or infrared sensor.
- In built Sunrise/Sunset timings of the location, for 365 days of the year.
- Twilight Option is also available and adjustable between 0-60 minutes.
- Suitable for single circuit.
- Manual option is available to turn off load in late night, at required time.
- No need of maintenance, as in photo sensor based or infrared sensor based devices.
- No need to adjust time in 15/20 days as in time switches.
- A True Nature Switch, for complete unmanned operation
- This switch is an ideal time switch for switching on street lights, high mast lights, compound lights in housing societies, advertisement hoarding lights, sign board lights at sunset time & switching off at sunrise time without any light sensor.
- An ideal Energy Saver for Municipal and City Corporations for street lights, Industries, Housing Societies, etc.
- An ultimate product for Energy Conservation.

ASTRONOMICAL TIME SWITCH (Sunrise/Sunset Switch) - AST110-M

All features of Model: AST110, in addition of the following,

- Three Circuits can be separately controlled to reduce load in late night.(available in Model ESO110 series Energy Saver)
- All circuits have individual ON-OFF settings.

DIGITAL TIME SWITCH/GLOWSIGN BOARD TIMER - CLK 110

These time switches are designed for controlling the operating time of general electrical loads. It is a fully automatic device which finds application in both domestic as well as industrial fields. It is widely used to control the operation of common domestic loads such as Porch Lights, Gate Lights, Garden Lights etc. and industrial loads such as Advertisement Hoardings, Glow Sign Boards, Neon Sign Boards, Commercial Lighting, Street Lights etc. The large display of the device doubles its utility as a digital clock also. The sturdy and aesthetic enclosure suits well into any kind of environment. The unit is extremely user friendly and easy to install.

Functions & Features

- Automates lights and equipments
- Controls operating time (set on time and off time)
- Save Energy
- Reduce Power Bills
- Flexible Time Configuration
- Up to 1 minute resolution
- Secondary use as digital clock
- Can handle 3 KW directly, no external Contactor required.
- 2 years Battery backup for RTC



AUTOMATIC WATER PUMP CONTROLLER - WLG 110

Waders presents the microcomputer based Automatic Water Pump Controller to ON and OFF the water pump, automatically as required. This ultimate water filling system takes care of your daily water filling requirements. It is available in various models to cover full range of water pumps from single phase domestic pumps to three phase domestic/industrial pumps. The controller is installed with your existing starter.

Automatic Water Pump Controller can also be used to remove sewage/used water from the storage tanks in the basements. A special over/under voltage cutout can also be in co-operated for the maximum protection [on request].

◆ Salient Features

- The primary function of the system is to make the user free of all his daily water filling requirements. It will start & stop the water pump automatically.
 - All the operational status messages are displayed digitally through 7 segment display.
 - Easy to control auto and manual mode.
 - It monitors minimum & maximum levels in the tank. The pump is switched ON, when water level goes below minimum level. And pump is switched OFF, when tank gets full. So that, there is no chance of over flowing.
 - It can also be used in dual tank systems, when it is required to monitor the ground tank as well as the over head tank.
 - It can also be used to remove water from the storage tanks.
 - Models available from any single or three phase pump. **EXCLUSIVE MODEL FOR SINGLE PHASE SUBMERSIBLE PUMP IS ALSO AVAILABLE.**
 - With the help of two sensors, it keeps an eye on the inlet water supply as well as over head tank.
 - As soon as it senses water at the inlet, pump is switched ON. So the user does not have to worry about the arrival of the water supply hence there will be no chance of dry running of the pump.
- The whole process is completely automatic, Waders Automatic
- Water Pump Controller helps in saving water and electricity, as well as it enhances the life of the water pump.
 - The unit comes with one year warranty.

